AMENDMENTS TO THE CLAIMS

Claims 1-15 (Cancelled)

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16. (Original) An anti-fuse formed on a first semiconductor material of a first conductivity type, the anti-fuse comprising:

a well formed in the first semiconductor material, the well having a surface, a second conductivity type, and a dopant concentration;

a first doped region of the second conductivity type formed in the well, the first doped region having a dopant concentration that is greater than the dopant concentration of the well;

a second doped region of the first conductivity type formed in the well, the second doped region being spaced apart from the first doped region;

a third doped region formed in the well, the third doped region being spaced apart from the first and second doped regions;

a layer of insulation material formed on the surface of the well, the layer of insulation material having a first opening that exposes the first doped region of the well, a second opening that exposes the second doped region of the well, and a third opening that exposes the third doped region of the well;

a first section of a second semiconductor material formed on the layer of insulation material and the first region;

a second section of the second semiconductor material formed on the layer of insulation material and the second region, the second section being spaced apart from the first section; and

a first layer of dielectric material formed on the first section, the second section, and the third doped region.

17. (Original) The anti-fuse of claim 16 wherein the first section includes:

a first polysilicon region; and

a first layer of silicide formed on the first polysilicon region.

18. (Original) The anti-fuse of claim 17 wherein the second section includes:

a second polysilicon region; and

a second layer of silicide formed on the second polysilicon region.

B1 Cont.

19. (Original) The anti-fuse of claim 18 and further comprising a third layer of silicide formed on the third doped region.

20. (Original) The anti-fuse of claim 19 and further comprising a side wall spacer formed to adjoin the first section over the third doped region.

21. (Cancelled.)

22. (Currently Amended) ~~The anti-fuse of claim 21 and further comprising:~~ An anti-fuse formed on a semiconductor material of a first conductivity type, the anti-fuse comprising:

a well formed in the semiconductor material, the well having a surface, a second conductivity type, and a dopant concentration;

a first doped region of the second conductivity type formed in the well, the first doped region having a dopant concentration that is greater than the dopant concentration of the well; and

a second doped region of the first conductivity type formed in the well, the second doped region being spaced apart from the first doped region;

a third doped region formed in the well between the first and second doped regions;

a metallic layer formed on the third doped region; and

a layer of insulation material formed on the metallic layer, the layer of insulation material being free of a conductive material that extends through the layer of insulation material and contacts the metallic layer.

23. (Previously Added) The anti-fuse of claim 22 wherein the third doped region has the second conductivity type and a dopant concentration greater than the dopant concentration of the well.

B1 cont.

24. (Cancelled).

25. (Currently Amended) The anti-fuse of claim ~~21~~ 22 and further comprising:

a first region of conductive material formed on the first doped region, the first region having sidewalls; and

a second region of conductive material formed on the second doped region, the second region having sidewalls and being spaced apart from the first region~~; and~~

~~a layer of insulation material formed between the first and second regions, the layer of insulation material being free of a conductive material that lies between the first and second regions and is spaced apart from the surface of the well~~.

26. (Previously Added) The anti-fuse of claim 25 and further comprising a first sidewall spacer formed to contact the sidewalls of the first region.

27. (Previously Added) The anti-fuse of claim 26 and further comprising a second sidewall spacer formed to contact the sidewalls of the second region.

28. (Cancelled).

29. (Cancelled).

30. (Cancelled).

31. (New) An anti-fuse formed on a semiconductor material of a first conductivity type, the anti-fuse comprising:

a well formed in the semiconductor material, the well having a surface, a second conductivity type, and a dopant concentration;

B1 cont.

a first doped region of the second conductivity type formed in the well, the first doped region having a dopant concentration that is greater than the dopant concentration of the well;

a second doped region of the first conductivity type formed in the well, the second doped region being spaced apart from the first doped region;

a third doped region formed in the well, the third doped region being spaced apart from the first and second doped regions and having a dopant concentration that is greater than the dopant concentration of the well;

a metallic material formed on a metal region of the top surface of the third doped region, the metallic material having a top surface; and

a region of insulation material that contacts the top surface of the metallic material, no conductive material contacting the top surface of the metallic material over the metal region.

32. (New) The anti-fuse of claim 31 and further comprising:

a first conductive region that contacts the first doped region, the first conductive region being spaced apart from the third doped region and having a top surface; and

a second conductive region that contacts the second doped region, the second conductive region being spaced apart from the first conductive region and the third doped region and having a top surface.

33. (New) The anti-fuse of claim 32 wherein the region of insulation material lies between the first conductive region and the second conductive region.

34. (New) The anti-fuse of claim 33 and further comprising:

a first sidewall spacer that contacts a sidewall of the first conductive region; and

a second sidewall spacer that contacts a sidewall of the second conductive region.

B1 Cont.

35. (New) The anti-fuse of claim 34 wherein the metal region lies between the first and second sidewall spacers.

36. (New) The anti-fuse of claim 32 and further comprising a first isolation region that lies between the first conductive region and the well.

37. (New) The anti-fuse of claim 36 and further comprising a second isolation region that lies between the second conductive region and the well.

38. (New) The anti-fuse of claim 32 and further comprising:

a first metallic region that contacts the top surface of the first conductive region; and

a second metallic region that contacts the top surface of the first conductive region

39. (New) The anti-fuse of claim 38 and further comprising a conductive metallic path that extends through the first conductive region to contact the metallic material.

40. (New) The anti-fuse of claim 39 and further comprising a conductive metallic path that extends through the second conductive region to contact the metallic material.

B1